Teacher's Scoring Guide

Grade 4
Mathematics

Fall 2007

Indiana Statewide Testing for Educational Progress

49921-W

INTRODUCTION

During the fall of 2007, Indiana students in Grades 3 through 10 participated in the administration of *ISTEP+*. The test for *ISTEP+* Fall 2007 consisted of a multiple-choice section and an applied skills section. For the fall testing, the multiple-choice section was machine-scored. The applied skills section, which consisted of open-ended questions, was hand-scored.

The test results for both the multiple-choice and the applied skills sections were returned to the schools in late November 2007. Copies of student responses to the open-ended questions were returned to the schools in early December 2007. It is the expectation of the Indiana Department of Education that schools will take this opportunity to invite students and parents to sit down with teachers to discuss the results. To support this endeavor, the Indiana Department of Education has prepared the following *Teacher's Scoring Guide*. The purpose of this guide is to help teachers to:

- understand the methods used to score the *ISTEP+* Fall 2007 applied skills section, and
- discuss and interpret these results with students and parents.

In order to use this guide effectively, you will also need the Student Report and a copy of the student's work.

There are two scoring guides for Grade 4, English/Language Arts and Mathematics. In this Mathematics guide, you will find:

- an introduction,
- a list of the Mathematics Grade 3 Indiana Academic Standards,*
- rubrics (scoring rules) used to score the open-ended questions,
- anchor papers that are actual examples of student work (transcribed in this guide for clarity and ease of reading), and
- descriptions of the ways in which the response meets the rubric criteria for each of the score points.

When you review the contents of the scoring guide, keep in mind that this guide is an overview. If you have questions, write via e-mail (istep@doe.state.in.us) or call the Indiana Department of Education at (317) 232-9050.

* Because *ISTEP+* is administered early in the fall, the Grade 4 test is based on the academic standards through Grade 3.

INTRODUCTION TO THE MATHEMATICS APPLIED SKILLS SECTION

The applied skills section that students responded to this past fall in Grade 4 allowed the students to demonstrate their understanding of Mathematics in a variety of ways, such as utilizing punchout tools, explaining a solution, drawing a picture, or interpreting a table or graph.

STRUCTURE

The applied skills section for Grade 4 Mathematics was divided into two tests, Test 7 and Test 8. Each test consisted of six open-ended questions.

SCORING

Each open-ended question was scored according to its own rubric. A rubric is a description of student performance that clearly articulates the requirements for each of the score points. Scoring rubrics are essential because they ensure that all papers are scored objectively. Each rubric for this administration of the *ISTEP+* Grade 4 Mathematics assessments has a maximum possible score of two or three score points.

NOTE: Images of the questions and student work have been reduced to fit the format of this guide. As a result, figures and diagrams in measurement questions will appear smaller in this guide than in the actual test book.

Rubrics are established prior to testing to describe the performance criteria for each score point. The performance criteria determine the number of score points possible for each question. This process ensures that all responses are judged objectively.

1. Students should not be penalized for omitting:

   - degree symbols
   - dollar signs ($) or cent signs (¢)
   - zeros for place holders; for example, either 0.75 or .750 could be used
   - labels for word problems; for example, *miles*

     NOTE: Students WILL be penalized for use of incorrect labels.

2. Students should not be penalized for:

   - spelling or grammar errors
   - using abbreviations; for example, *ft* or *feet* would be acceptable

3. Students should be given credit for:

   - entries in the workspace that indicate understanding of a complete process even if the response on the answer line is incorrect (i.e., the student would receive partial credit for questions with rubrics that allow for scoring the work)
   - answers not written on the answer line; for example, an answer could be given in the workspace or in the explanation (however, in some cases, because of the multiple calculations in the workspace, placement of an answer on the answer line is necessary to determine which response the student intended). Students WILL be penalized for incorrect answers written on the answer line even if the correct answer appears in the workspace.

4. Students should be given credit for:

   - bar graphs with bars of any width
   - bar graphs with either horizontal or vertical bars
   - circle graphs with data presented in any order
   - line graphs only if lines connect the points

CONDITION CODES

If a response is unscorable, it is assigned one of the following condition codes:

A Blank/No response/Refusal
B Illegible
C Written predominantly in a language other than English
D Insufficient response/Copied from text

MATHEMATICS GRADE 3
INDIANA ACADEMIC STANDARDS

- **Number Sense**
  Students understand the relationships among numbers, quantities, and place value in whole numbers up to 1,000. They understand the relationship among whole numbers, simple fractions, and decimals.

- **Computation**
  Students solve problems involving addition and subtraction of whole numbers. They model and solve simple problems involving multiplication and division.

- **Algebra and Functions**
  Students select appropriate symbols, operations, and properties to represent, describe, simplify, and solve simple number and functional relationships.

- **Geometry**
  Students describe and compare the attributes of plane and solid geometric shapes and use their understanding to show relationships and solve problems.

- **Measurement**
  Students choose and use appropriate units and measurement tools for length, capacity, weight, temperature, time, and money.

- **Problem Solving**
  Students make decisions about how to approach problems and communicate their ideas. Students use strategies, skills, and concepts in finding and communicating solutions to problems. Students determine when a solution is complete and reasonable and move beyond a particular problem by generalizing to other situations.

Problem Solving is identified as a Process Skill in the Indiana Academic Standards. To ensure that the *ISTEP+* questions that assess this Process Skill are grade-appropriate and that the questions use skills that are contained in the standards, these questions are developed by including at least two different indicators from Content Skills in addition to the indicator from the Process Skill. Some of the Content Standards included in the Content Skills are Computation, Geometry, and Algebra. The additional indicators may be from the same or different Content Skills.

The Content Skills used for each of the Process Skill questions in the Grade 4 applied skills section are shown in the following chart.

PROCESS SKILL QUESTIONS

Question	Process Skill	Content Skills *Item may map to more than one indicator in a standard.*
Test 7		
3	Problem Solving	Computation, Algebra and Functions
5	Problem Solving	Computation, Measurement
Test 8		
2	Problem Solving	Computation, Algebra and Functions
3	Problem Solving	Number Sense, Measurement
5	Problem Solving	Computation, Algebra and Functions

Test 7—Question 1: Algebra and Functions

1 Leah, Ricardo, and Colin have 300 cards IN ALL. Leah has 70 cards and Ricardo has 100 cards.

On the line below, write an equation that can be used to find how many cards Ricardo and Leah have IN ALL.

Equation _____

On the line below, write an equation that can be used to find how many cards Colin has.

Equation _____

Exemplary Response:

- $100 + 70 = \square$

AND

- $300 - 170 = \square$

Rubric:

2 points	Exemplary response
1 point	One correct component
0 points	Other

SCORE POINT 2

1 Leah, Ricardo, and Colin have 300 cards IN ALL. Leah has 70 cards and Ricardo has 100 cards.

On the line below, write an equation that can be used to find how many cards Ricardo and Leah have IN ALL.

Equation 70 + 100 = 170

On the line below, write an equation that can be used to find how many cards Colin has.

Equation 300 – 170 = 130

Test 7—Question 1
Score Point 2

This response matches the exemplary response contained in the rubric. The student gives two correct equations. The response receives a Score Point 2.

SCORE POINT 1

1 Leah, Ricardo, and Colin have 300 cards IN ALL. Leah has 70 cards and Ricardo has 100 cards.

On the line below, write an equation that can be used to find how many cards Ricardo and Leah have IN ALL.

Equation 100 + 70 = 170

On the line below, write an equation that can be used to find how many cards Colin has.

Equation 130

Test 7—Question 1
Score Point 1

This response contains one correct component. The second answer given is not an equation. Therefore, this response receives a Score Point 1.

Test 7—Question 1
Score Point 0

This response is incorrect. The student does not give an equation for the first answer, and gives an invalid equation for the second answer. Therefore, this response receives a Score Point 0.

SCORE POINT 0

1 Leah, Ricardo, and Colin have 300 cards IN ALL. Leah has 70 cards and Ricardo has 100 cards.

On the line below, write an equation that can be used to find how many cards Ricardo and Leah have IN ALL.

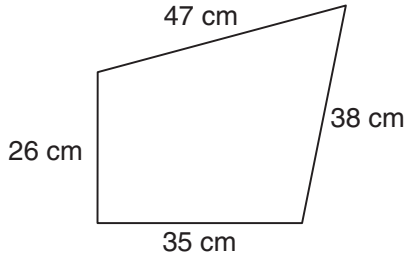
Equation 170

On the line below, write an equation that can be used to find how many cards Colin has.

Equation 230 + 70 = 300

Test 7—Question 2: Measurement

2 What is the perimeter, in centimeters, of the figure shown in the diagram below?



Show All Work

Answer _____ centimeters

Exemplary Response:

- 146 centimeters

Sample Process:

- Perimeter = 47 + 38 + 35 + 26
  = 146 centimeters

OR

- Other valid process

Rubric:

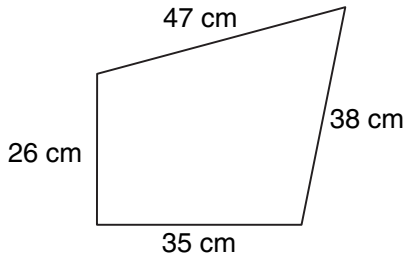
2 points	Exemplary response
1 point	Correct complete process; error in computation
0 points	Other

Test 7—Question 2
Score Point 2

This response matches the exemplary response contained in the rubric. The student gives a correct answer of 146 centimeters. The response receives a Score Point 2.

SCORE POINT 2

2 What is the perimeter, in centimeters, of the figure shown in the diagram below?



Show All Work

$$\begin{array}{r} {\scriptstyle 1}\\ 47\text{ cm}\\ +\ 35\text{ cm}\\ \hline 82\text{ cm} \end{array} \qquad \begin{array}{r} {\scriptstyle 1}\\ 38\text{ cm}\\ +\ 26\text{ cm}\\ \hline 64\text{ cm} \end{array} \qquad \begin{array}{r} 82\text{ cm}\\ +\ 64\text{ cm}\\ \hline 146\text{ cm} \end{array}$$

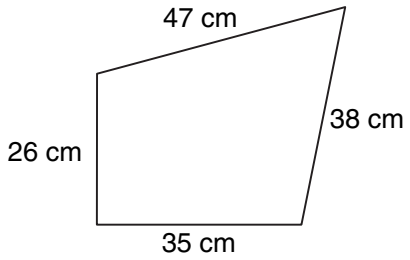
Answer 146 centimeters

Test 7—Question 2
Score Point 1

This response shows a correct complete process. However, the student does not carry from the ones column, which leads to an incorrect answer. Therefore, this response receives a Score Point 1.

SCORE POINT 1

2 What is the perimeter, in centimeters, of the figure shown in the diagram below?



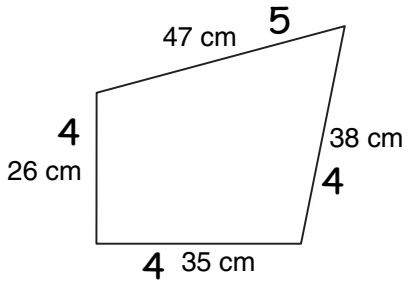
Show All Work

$$\begin{array}{r} 26\\ +\ 35\\ +\ 38\\ \underline{\quad 47}\\ = 126 \end{array}$$

Answer 126 centimeters

SCORE POINT 0

2 What is the perimeter, in centimeters, of the figure shown in the diagram below?



Show All Work

4 cm + 4 cm + 5 cm = 13

Answer 13 centimeters

Test 7—Question 2
Score Point 0

This response is incorrect. The student gives an incorrect answer and shows an incomplete process with incorrect values. Therefore, this response receives a Score Point 0.

Test 7—Question 3: Problem Solving

3 Grant's block collection is shown in the table below.

Grant's Blocks

Type of Block	Number of Blocks
Wood	211
Plastic	108
Foam	193

Grant's cousin has a total of 579 blocks. On the line below, write a number sentence to find the difference between the total number of blocks Grant has and the total number of blocks his cousin has.

Show All Work

Number Sentence _____

Exemplary Response:

- $579 - 512 = 67$

OR

- Other valid equation

AND

- Correct complete process

Sample Process:

- $211 + 108 + 193 = 512$
  $579 - 512 = 67$

OR

- Other valid process

NOTE: Award credit for a correct number sentence based on an error in computation.

Rubric:

2 points	Exemplary response
1 point	One correct component
0 points	Other

SCORE POINT 2

3 Grant's block collection is shown in the table below.

Grant's Blocks

Type of Block	Number of Blocks
Wood	211
Plastic	108
Foam	193

Grant's cousin has a total of 579 blocks. On the line below, write a number sentence to find the difference between the total number of blocks Grant has and the total number of blocks his cousin has.

Show All Work

```
  1 1
  211
  108
+ 193
  512

  579
- 512
  067
```

Number Sentence 579 – 512 = 67

Test 7—Question 3
Score Point 2

This response matches the exemplary response contained in the rubric. The student shows a correct complete process and gives a correct number sentence. The response receives a Score Point 2.

Test 7—Question 3
Score Point 1

This response shows a valid process. However, the student makes an error in computation and does not give a number sentence on the line. Therefore, this response receives a Score Point 1.

SCORE POINT 1

3 Grant's block collection is shown in the table below.

Grant's Blocks

Type of Block	Number of Blocks
Wood	211
Plastic	108
Foam	193

Grant's cousin has a total of 579 blocks. On the line below, write a number sentence to find the difference between the total number of blocks Grant has and the total number of blocks his cousin has.

Show All Work

```
  1 1
  211
  108
+ 193
  512

  579
- 512
   65
```

Number Sentence 65

SCORE POINT 0

3 Grant's block collection is shown in the table below.

Grant's Blocks

Type of Block	Number of Blocks
Wood	211
Plastic	108
Foam	193

Grant's cousin has a total of 579 blocks. On the line below, write a number sentence to find the difference between the total number of blocks Grant has and the total number of blocks his cousin has.

Show All Work

$$\begin{array}{r} \overset{1}{} \\ 579 \\ +\ 512 \\ \hline 1{,}091 \end{array}$$

Number Sentence 1,091

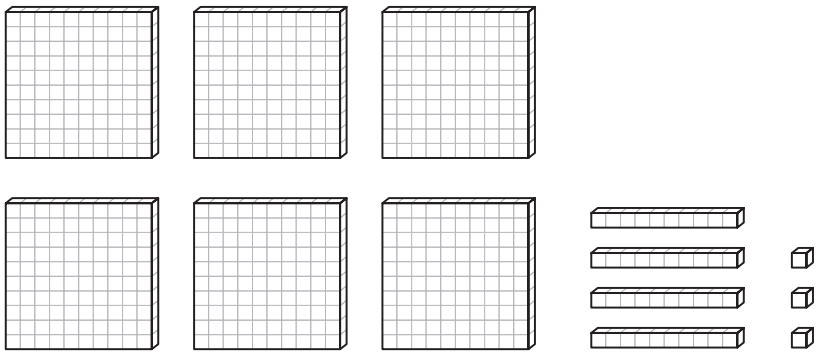
Test 7—Question 3
Score Point 0

This response shows an invalid process and an incorrect answer. The student adds the numbers instead of subtracting to find the difference. Therefore, this response receives a Score Point 0.

Test 7—Question 4: Number Sense

4 Look at the place-value blocks shown below.

= one



What number is represented by these place-value blocks?

Answer _____

Look at the additional place-value blocks below.

If these place-value blocks are included with the previous place-value blocks, what new number will be represented?

Answer _____

Exemplary Response:

- 643

AND

- 663

NOTE: Award credit for a correct second response based on an incorrect first response.

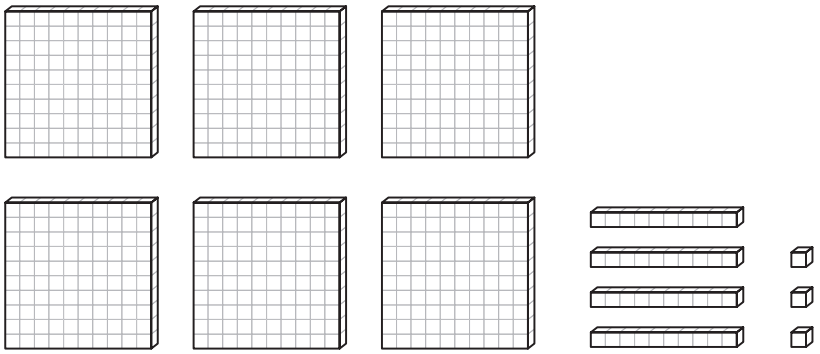
Rubric:

2 points	Exemplary response
1 point	One correct component
0 points	Other

SCORE POINT 2

4 Look at the place-value blocks shown below.

= one



What number is represented by these place-value blocks?

Answer 643

Look at the additional place-value blocks below.

If these place-value blocks are included with the previous place-value blocks, what new number will be represented?

Answer 663

Test 7—Question 4
Score Point 2

This response matches the exemplary response contained in the rubric. The student gives two correct answers. The response receives a Score Point 2.

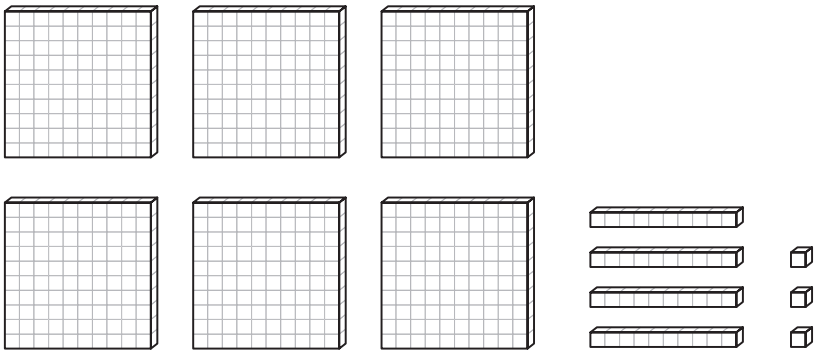
Test 7—Question 4
Score Point 1

This response shows one correct answer. The student correctly answers the first part of the question. The student incorrectly identifies the new number represented by the place value blocks. Therefore, this response receives a Score Point 1.

SCORE POINT 1

4 Look at the place-value blocks shown below.

= one



What number is represented by these place-value blocks?

Answer 643

Look at the additional place-value blocks below.

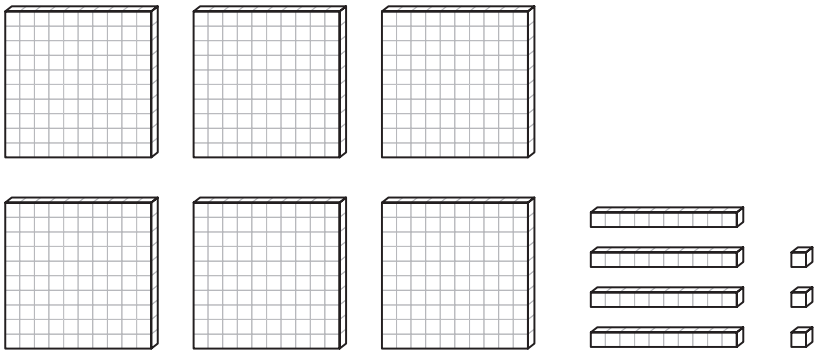
If these place-value blocks are included with the previous place-value blocks, what new number will be represented?

Answer 20

SCORE POINT 0

4 Look at the place-value blocks shown below.

= one



What number is represented by these place-value blocks?

Answer 653

Look at the additional place-value blocks below.

If these place-value blocks are included with the previous place-value blocks, what new number will be represented?

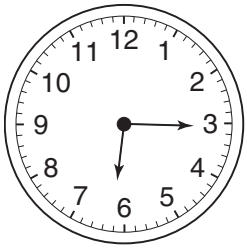
Answer 20

Test 7—Question 4
Score Point 0

This response shows two incorrect answers. Therefore, this response receives a Score Point 0.

Test 7—Question 5: Problem Solving

5 It takes Alexei exactly 10 minutes to make one batch of cookies. Alexei wants to make 4 batches of cookies. The clock below shows the time that Alexei begins making the cookies.



If Alexei makes the batches of cookies one right after the other, what time will it be when Alexei takes the fourth batch of cookies out of the oven?

Show All Work

Answer _____

Exemplary Response:

- 6:55

AND

- Correct complete process

Sample Process:

- $10 \times 4 = 40$ minutes

  6:15 + 40 min = 6:55

OR

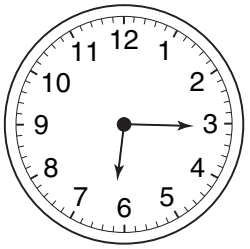
- Other valid process

Rubric:

2 points	Exemplary response
1 point	Correct answer only OR Correct complete process; error in computation
0 points	Other

SCORE POINT 2

5 It takes Alexei exactly 10 minutes to make one batch of cookies. Alexei wants to make 4 batches of cookies. The clock below shows the time that Alexei begins making the cookies.



If Alexei makes the batches of cookies one right after the other, what time will it be when Alexei takes the fourth batch of cookies out of the oven?

Show All Work

6:15
+ 6:40
6:55

10 min.
10 min.
10 min.
+ 10 min.
40 min.

Answer 6:55

Test 7—Question 5
Score Point 2

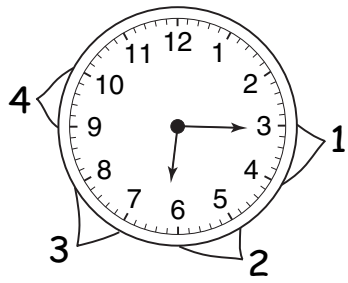
This response matches the exemplary response contained in the rubric. The student shows a correct process and gives the correct answer of 6:55. The response receives a Score Point 2.

Test 7—Question 5
Score Point 1

This response shows a correct complete process with an error in computation. Therefore, this response receives a Score Point 1.

SCORE POINT 1

5 It takes Alexei exactly 10 minutes to make one batch of cookies. Alexei wants to make 4 batches of cookies. The clock below shows the time that Alexei begins making the cookies.



If Alexei makes the batches of cookies one right after the other, what time will it be when Alexei takes the fourth batch of cookies out of the oven?

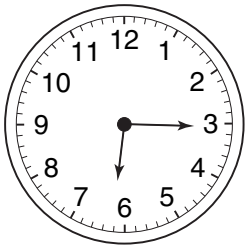
Show All Work

$$\begin{array}{r} 10 \\ +\ 10 \\ 10 \\ 10 \\ \hline +\ 40 \\ 6{:}15 \\ \hline 705 \end{array}$$

Answer 7:05

SCORE POINT 0

5 It takes Alexei exactly 10 minutes to make one batch of cookies. Alexei wants to make 4 batches of cookies. The clock below shows the time that Alexei begins making the cookies.



If Alexei makes the batches of cookies one right after the other, what time will it be when Alexei takes the fourth batch of cookies out of the oven?

Show All Work

$$\begin{array}{r} 10 \\ \times\ 4 \\ \hline 40 \end{array}$$

Answer 40 min

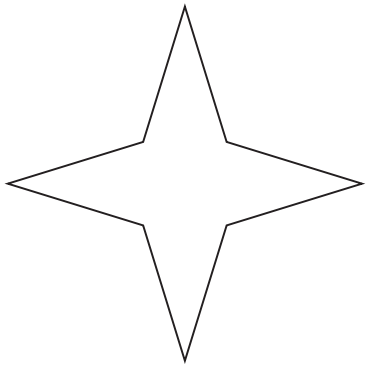
Test 7—Question 5
Score Point 0

This response shows an incomplete process and an incorrect answer on the line. While the student finds the total time for four batches of cookies, the student does not use the time to determine when the last batch will come out of the oven. Therefore, this response receives a Score Point 0.

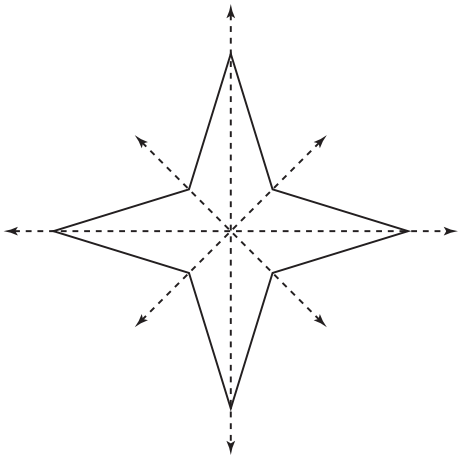
Test 7—Question 6: Geometry

6  Use your ruler as a straightedge.

Draw ALL possible lines of symmetry on the shape below.



Exemplary Response:

- 

NOTE: Award no credit if an incorrect line of symmetry is drawn.

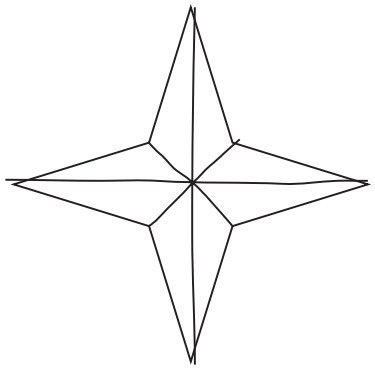
Rubric:

2 points	Exemplary response
1 point	Two or three correct lines of symmetry drawn
0 points	Other

SCORE POINT 2

6  Use your ruler as a straightedge.

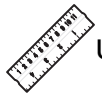
Draw ALL possible lines of symmetry on the shape below.



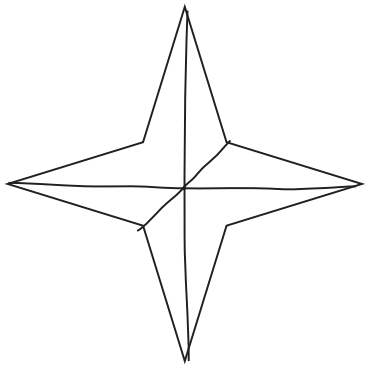
Test 7—Question 6
Score Point 2

This response matches the exemplary response contained in the rubric. The student shows four correct lines of symmetry drawn on the shape. The response receives a Score Point 2.

SCORE POINT 1

6  Use your ruler as a straightedge.

Draw ALL possible lines of symmetry on the shape below.



Test 7—Question 6
Score Point 1

This response shows only three of the four correct lines of symmetry drawn. Therefore, this response receives a Score Point 1.

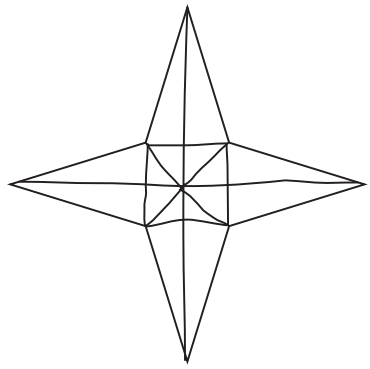
Test 7—Question 6
Score Point 0

This response is incorrect. The student shows four correct lines of symmetry. However, the student also shows four incorrect lines of symmetry. Therefore, this response receives a Score Point 0.

SCORE POINT 0

6  Use your ruler as a straightedge.

Draw ALL possible lines of symmetry on the shape below.



Test 8—Question 1: Computation

1 Look at the multiplication number sentence below.

$$5 \times 3 = 15$$

On the line below, write an ADDITION number sentence that has the same meaning as the multiplication number sentence.

Number Sentence _____

On the line below, write a DIFFERENT ADDITION number sentence that has the same meaning as the multiplication number sentence.

Number Sentence _____

Exemplary Response:

- $5 + 5 + 5 = 15$

AND

- $3 + 3 + 3 + 3 + 3 = 15$

Rubric:

2 points	Exemplary response
1 point	One correct component
0 points	Other

Test 8—Question 1
Score Point 2

This response matches the exemplary response contained in the rubric. The student gives two correct number sentences. The response receives a Score Point 2.

SCORE POINT 2

1 Look at the multiplication number sentence below.

$5 \times 3 = 15$

On the line below, write an ADDITION number sentence that has the same meaning as the multiplication number sentence.

Number Sentence 5 + 5 + 5 = 15

On the line below, write a DIFFERENT ADDITION number sentence that has the same meaning as the multiplication number sentence.

Number Sentence 3 + 3 + 3 + 3 + 3 = 15

Test 8—Question 1
Score Point 1

This response shows only one correct number sentence. The second number sentence given shows division when the item asked for addition. Therefore, this response receives a Score Point 1.

SCORE POINT 1

1 Look at the multiplication number sentence below.

$5 \times 3 = 15$

On the line below, write an ADDITION number sentence that has the same meaning as the multiplication number sentence.

Number Sentence 5 + 5 + 5 = 15

On the line below, write a DIFFERENT ADDITION number sentence that has the same meaning as the multiplication number sentence.

Number Sentence 15 ÷ 3 = 5

SCORE POINT 0

1 Look at the multiplication number sentence below.

$5 \times 3 = 15$

On the line below, write an ADDITION number sentence that has the same meaning as the multiplication number sentence.

Number Sentence 3 × 5 = 15

On the line below, write a DIFFERENT ADDITION number sentence that has the same meaning as the multiplication number sentence.

Number Sentence 1 × 15 = 15

Test 8—Question 1
Score Point 0

This response shows two incorrect number sentences. The student writes two multiplication number sentences instead of using addition as specified in the question. Therefore, this response receives a Score Point 0.

2 Kelly and Robin each played three levels of a computer game. The table below shows how many points they earned on each of the first three levels.

Computer Game Scores

Level	Kelly's Score	Robin's Score
1	327	282
2	319	398
3	205	203

When they played the fourth level of the computer game, Kelly scored 119 points and Robin scored p points. The total score for both girls on the fourth level was 222.

On the line below, write a number sentence that can be used to find how many points, p, Robin scored on the fourth level.

Number Sentence _____

How many points did Robin score on the fourth level?

Show All Work

Answer_____ points

Exemplary Response:

- $222 - 119 = p$

OR

- Other valid number sentence

AND

- 103 points

AND

- Correct complete process

Sample Process:

- $222 - 119 = 103$

OR

- Other valid process

NOTES: Award 1 point for a correct answer based on an incorrect number sentence.

Award 1 point for a correct complete process based on an incorrect number sentence.

Rubric:

3 points	Exemplary response
2 points	Two correct components
1 point	One correct component
0 points	Other

Test 8—Question 2
Score Point 3

This response matches the exemplary response contained in the rubric. The student gives a correct number sentence, gives a correct answer of 103 points, and shows a correct complete process. The response receives a Score Point 3.

SCORE POINT 3

2 Kelly and Robin each played three levels of a computer game. The table below shows how many points they earned on each of the first three levels.

Computer Game Scores

Level	Kelly's Score	Robin's Score
1	327	282
2	319	398
3	205	203

When they played the fourth level of the computer game, Kelly scored 119 points and Robin scored p points. The total score for both girls on the fourth level was 222.

On the line below, write a number sentence that can be used to find how many points, p, Robin scored on the fourth level.

Number Sentence 119 + p = 222

How many points did Robin score on the fourth level?

Show All Work

1 12
2 2 2
- 1 1 9
1 0 3

Answer 103 points

SCORE POINT 2

2 Kelly and Robin each played three levels of a computer game. The table below shows how many points they earned on each of the first three levels.

Computer Game Scores

Level	Kelly's Score	Robin's Score
1	327	282
2	319	398
3	205	203

When they played the fourth level of the computer game, Kelly scored 119 points and Robin scored p points. The total score for both girls on the fourth level was 222.

On the line below, write a number sentence that can be used to find how many points, p, Robin scored on the fourth level.

Number Sentence _____

How many points did Robin score on the fourth level?

Show All Work

$$\begin{array}{r} {\scriptstyle 11} \\ 2\cancel{2}2 \\ -\ 119 \\ \hline 103 \end{array} \qquad \begin{array}{r} {\scriptstyle 1} \\ 103 \\ +\ 119 \\ \hline 222 \end{array}$$

Answer 103 points

Test 8—Question 2
Score Point 2

This response shows two correct components. The student gives a correct answer and shows a correct complete process. However, the student does not give a number sentence in the first part of the question. Therefore, this response receives a Score Point 2.

Test 8—Question 2
Score Point 1

This response shows one correct component. The student gives an incorrect number sentence, finding the total points scored for Level 1 rather than the points for Robin on Level 4. The student gives a correct answer of 103 points, but does not show a process. Therefore, this response receives a Score Point 1.

SCORE POINT 1

2 Kelly and Robin each played three levels of a computer game. The table below shows how many points they earned on each of the first three levels.

Computer Game Scores

Level	Kelly's Score	Robin's Score
1	327	282
2	319	398
3	205	203

When they played the fourth level of the computer game, Kelly scored 119 points and Robin scored p points. The total score for both girls on the fourth level was 222.

On the line below, write a number sentence that can be used to find how many points, p, Robin scored on the fourth level.

Number Sentence 327 + 282 = 609

How many points did Robin score on the fourth level?

Show All Work

Answer 103 points

SCORE POINT 0

2 Kelly and Robin each played three levels of a computer game. The table below shows how many points they earned on each of the first three levels.

Computer Game Scores

Level	Kelly's Score	Robin's Score
1	327	282
2	319	398
3	205	203

When they played the fourth level of the computer game, Kelly scored 119 points and Robin scored p points. The total score for both girls on the fourth level was 222.

On the line below, write a number sentence that can be used to find how many points, p, Robin scored on the fourth level.

Number Sentence 119 + 222 =

How many points did Robin score on the fourth level?

Show All Work

```
  11
 ~~1~~99
-  222
 -----
  977
```

Answer 977 points

Test 8—Question 2
Score Point 0

This response is incorrect. The student gives an incorrect number sentence and uses an incorrect process, leading to an incorrect answer on the line. Therefore, this response receives a Score Point 0.

Test 8—Question 3: Problem Solving

3 Erik, Dena, Mark, and Lisa studied for the class spelling bee. Erik studied a total of 3 hours. Dena studied a total of 300 minutes. Mark studied a total of 2 hours. Lisa studied a total of 240 minutes.

Compare the amount of time each student studied for the class spelling bee. On the lines below, order Erik, Dena, Mark, and Lisa from the student who spent the LEAST amount of time studying to the student who spent the GREATEST amount of time studying.

Show All Work

Answer _____, _____, _____, _____

Exemplary Response:

- Mark, Erik, Lisa, Dena

AND

- Correct complete process

Sample Process:

- Erik: 3 hrs = 180 min
  Dena: 300 min
  Mark: 2 hrs = 120 min
  Lisa: 240 min

OR

- Other valid process

NOTE: Award 1 point if a valid process is shown with students listed from greatest to least.

Rubric:

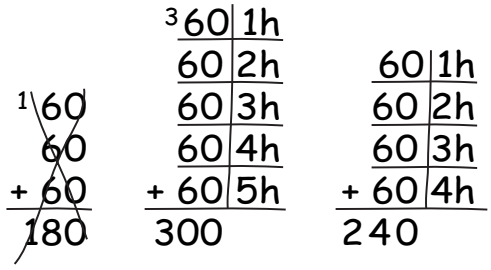
2 points	Exemplary response
1 point	Correct answer only OR Correct complete process; error in computation
0 points	Other

SCORE POINT 2

3 Erik, Dena, Mark, and Lisa studied for the class spelling bee. Erik studied a total of 3 hours. Dena studied a total of 300 minutes. Mark studied a total of 2 hours. Lisa studied a total of 240 minutes.

Compare the amount of time each student studied for the class spelling bee. On the lines below, order Erik, Dena, Mark, and Lisa from the student who spent the LEAST amount of time studying to the student who spent the GREATEST amount of time studying.

Show All Work



Answer Mark, Erik, Lisa, Dena

Test 8—Question 3
Score Point 2

This response matches the exemplary response contained in the rubric. The student correctly orders the students from least amount of time studying to greatest amount of time studying and shows a correct complete process. The response receives a Score Point 2.

SCORE POINT 1

3 Erik, Dena, Mark, and Lisa studied for the class spelling bee. Erik studied a total of 3 hours. Dena studied a total of 300 minutes. Mark studied a total of 2 hours. Lisa studied a total of 240 minutes.

Compare the amount of time each student studied for the class spelling bee. On the lines below, order Erik, Dena, Mark, and Lisa from the student who spent the LEAST amount of time studying to the student who spent the GREATEST amount of time studying.

Show All Work

Answer Mark, Erik, Lisa, Dena

Test 8—Question 3
Score Point 1

This response shows a correct answer, but no work is shown. Therefore, this response receives a Score Point 1.

Test 8—Question 3
Score Point 0

This response shows an incorrect process. The student ordered the times instead of ordering the students. Therefore, this response receives a Score Point 0.

SCORE POINT 0

3 Erik, Dena, Mark, and Lisa studied for the class spelling bee. Erik studied a total of 3 hours. Dena studied a total of 300 minutes. Mark studied a total of 2 hours. Lisa studied a total of 240 minutes.

Compare the amount of time each student studied for the class spelling bee. On the lines below, order Erik, Dena, Mark, and Lisa from the student who spent the least amount of time studying to the student who spent the GREATEST amount of time studying.

Show All Work

2 hours
3 hours

6
12 62
18 68
24 74
30 80
36 86
42 95
48 58
54 64
60 70 80 90 100 110 120 130 140 150 160 170
1 2 3 4 5 6 7 8 9

Answer 2 hours, 3 hours, 240, 300

Test 8—Question 4: Number Sense

4 Mr. Lyons wrote 4 student names on the cards shown below.

Mr. Lyons plans to choose a pair of hall monitors by drawing 2 of the names from a hat.

How many DIFFERENT pairs of hall monitors could be chosen by Mr. Lyons?

Show All Work

Answer _____ pairs

Exemplary Response:

- 6 pairs

Sample Process:

- Rick and Maria
  Rick and Kelly Maria and Kelly
  Rick and Silas Maria and Silas Kelly and Silas

OR

- Other valid process

Rubric:

2 points	Exemplary response
1 point	Four or five correct combinations only
0 points	Other

Test 8—Question 4
Score Point 2

This response matches the exemplary response contained in the rubric. The student gives a correct answer of 6 pairs. The response receives a Score Point 2.

SCORE POINT 2

4 Mr. Lyons wrote 4 student names on the cards shown below.

Mr. Lyons plans to choose a pair of hall monitors by drawing 2 of the names from a hat.

How many DIFFERENT pairs of hall monitors could be chosen by Mr. Lyons?

Show All Work

Rick - Kelly
Rick - maria
Silas - Kelly
Kelly - maria
Rick - Silas
maria - Silas

Answer 6 pairs

SCORE POINT 1

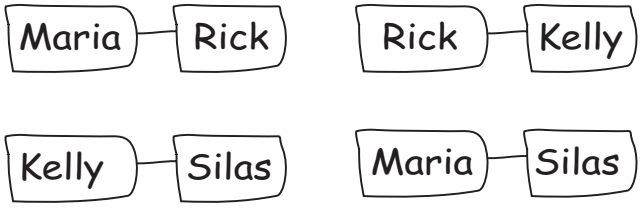
4 Mr. Lyons wrote 4 student names on the cards shown below.

Rick	Maria
Kelly	Silas

Mr. Lyons plans to choose a pair of hall monitors by drawing 2 of the names from a hat.

How many DIFFERENT pairs of hall monitors could be chosen by Mr. Lyons?

Show All Work



Answer 4 pairs

Test 8—Question 4
Score Point 1

This response shows only four correct combinations. Therefore, this response receives a Score Point 1.

Test 8—Question 4
Score Point 0

This response is incorrect. The student shows an incorrect process, which leads to an incorrect answer. Therefore, this response receives a Score Point 0.

SCORE POINT 0

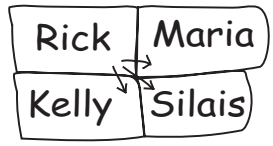
4 Mr. Lyons wrote 4 student names on the cards shown below.

Rick	**Maria**
Kelly	**Silas**

Mr. Lyons plans to choose a pair of hall monitors by drawing 2 of the names from a hat.

How many DIFFERENT pairs of hall monitors could be chosen by Mr. Lyons?

Show All Work



Answer two pairs

Test 8—Question 5: Problem Solving

5 There are 4 fire extinguishers and 5 smoke alarms in a pet store. Each smoke alarm needs 2 batteries to work properly.

How many batteries are needed for all the smoke alarms in the pet store to work properly?

Answer _____ batteries

The smoke alarms in a grocery store need 22 batteries.

On the line below, write a number sentence to find the TOTAL number of batteries needed in order for the smoke alarms in the pet store and grocery store to work properly.

Number Sentence _____

On the lines below, identify the information given above that was not needed to solve the problem.

_____

_____

_____

Exemplary Response:

- 10 batteries

AND

- 10 + 22 = 32

OR

- Other valid number sentence

AND

- I didn't need the number of fire extinguishers.

OR

- Other valid response

NOTE: Award credit for a correct number sentence based on an incorrect answer.

Rubric:

3 points	Exemplary response
2 points	Two correct components
1 point	One correct component
0 points	Other

Test 8—Question 5
Score Point 3

This response matches the exemplary response contained in the rubric. The student gives a correct answer of 10 batteries, a correct number sentence, and a valid explanation of the unnecessary information from the question. The response receives a Score Point 3.

SCORE POINT 3

5 There are 4 fire extinguishers and 5 smoke alarms in a pet store. Each smoke alarm needs 2 batteries to work properly.

How many batteries are needed for all the smoke alarms in the pet store to work properly?

Answer 10 batteries

The smoke alarms in a grocery store need 22 batteries.

On the line below, write a number sentence to find the TOTAL number of batteries needed in order for the smoke alarms in the pet store and grocery store to work properly.

Number Sentence 10 + 22 = 32

On the lines below, identify the information given above that was not needed to solve the problem.

In problem 5 you did not need to know there were 4 fire extinguishers.

SCORE POINT 2

5 There are 4 fire extinguishers and 5 smoke alarms in a pet store. Each smoke alarm needs 2 batteries to work properly.

How many batteries are needed for all the smoke alarms in the pet store to work properly?

Answer 10 batteries

The smoke alarms in a grocery store need 22 batteries.

On the line below, write a number sentence to find the TOTAL number of batteries needed in order for the smoke alarms in the pet store and grocery store to work properly.

Number Sentence 32 batteries

On the lines below, identify the information given above that was not needed to solve the problem.

There are 4 fire extinguishers.

Test 8—Question 5
Score Point 2

This response shows two correct components. The student gives a correct answer and a valid explanation. However, the student does not give a valid number sentence. Therefore, this response receives a Score Point 2.

Test 8—Question 5
Score Point 1

This response shows one correct component. The student does not give a valid number sentence and does not give a valid explanation of the unnecessary information from the question. Therefore, this response receives a Score Point 1.

SCORE POINT 1

5 There are 4 fire extinguishers and 5 smoke alarms in a pet store. Each smoke alarm needs 2 batteries to work properly.

How many batteries are needed for all the smoke alarms in the pet store to work properly?

Answer 10 batteries

The smoke alarms in a grocery store need 22 batteries.

On the line below, write a number sentence to find the TOTAL number of batteries needed in order for the smoke alarms in the pet store and grocery store to work properly.

Number Sentence 32 batteries

On the lines below, identify the information given above that was not needed to solve the problem.

none

SCORE POINT 0

5 There are 4 fire extinguishers and 5 smoke alarms in a pet store. Each smoke alarm needs 2 batteries to work properly.

How many batteries are needed for all the smoke alarms in the pet store to work properly?

Answer 18 batteries

The smoke alarms in a grocery store need 22 batteries.

On the line below, write a number sentence to find the TOTAL number of batteries needed in order for the smoke alarms in the pet store and grocery store to work properly.

Number Sentence 9 × 22 = 198

On the lines below, identify the information given above that was not needed to solve the problem.

The alarms are not in the pet store.

Test 8—Question 5
Score Point 0

This response is incorrect. The student does not give any valid answers. Therefore, this response receives a Score Point 0.

Test 8—Question 6: Computation

6 Jamie has 5 vases. She put 6 flowers in each vase.

On the line below, write an ADDITION number sentence that shows the number of flowers in Jamie's vases.

Number Sentence _____

On the line below, write a MULTIPLICATION number sentence that shows the number of flowers in Jamie's vases.

Number Sentence _____

Exemplary Response:

- $6 + 6 + 6 + 6 + 6 = 30$

AND

- $5 \times 6 = 30$

Rubric:

2 points	Exemplary response
1 point	One correct component
0 points	Other

SCORE POINT 2

6 Jamie has 5 vases. She put 6 flowers in each vase.

On the line below, write an ADDITION number sentence that shows the number of flowers in Jamie's vases.

Number Sentence 6 + 6 + 6 + 6 + 6 = 30

On the line below, write a MULTIPLICATION number sentence that shows the number of flowers in Jamie's vases.

Number Sentence 6 × 5 = 30

Test 8—Question 6
Score Point 2

This response matches the exemplary response contained in the rubric. The student gives two valid number sentences. The response receives a Score Point 2.

SCORE POINT 1

6 Jamie has 5 vases. She put 6 flowers in each vase.

On the line below, write an ADDITION number sentence that shows the number of flowers in Jamie's vases.

Number Sentence 6 + 6 + 6 + 6 + 6 + 6 = 30

On the line below, write a MULTIPLICATION number sentence that shows the number of flowers in Jamie's vases.

Number Sentence 5 × 6 = 30

Test 8—Question 6
Score Point 1

This response shows one correct number sentence. The first number sentence incorrectly shows the number 6 six times instead of five times. Therefore, this response receives a Score Point 1.

Test 8—Question 6
Score Point 0

This response shows two incorrect number sentences. Therefore, this response receives a Score Point 0.

SCORE POINT 0

6 Jamie has 5 vases. She put 6 flowers in each vase.

On the line below, write an ADDITION number sentence that shows the number of flowers in Jamie's vases.

Number Sentence 5 + 6 = 11

On the line below, write a MULTIPLICATION number sentence that shows the number of flowers in Jamie's vases.

Number Sentence $6\overline{)11}$ 5

NOTES

NOTES

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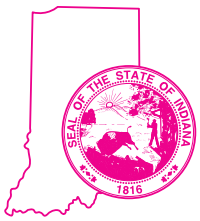

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